

6. *Gon. minimus*. Black, shining: the antennæ and the legs with the coxæ are whitish yellow; the joints of the antennæ at the base and at the tips are much thicker than the other joints. Fem. length  $\frac{1}{2}$  lin.

## MYMAR.

1. *pulchellus*. Ferrugineus antennis apice oculisque fuscis, alis apice nigris.

## EUSTOCHUS.

1. *atripennis*. Niger alis fuliginosis hirtis, antennis basi pedibus et petiolo ferrugineis, terebra abdomen superante.

## PROCEEDINGS OF LEARNED SOCIETIES.

## ZOOLOGICAL SOCIETY.

March 10, 1846.—Wm. Yarrell, Esq., Vice-President, in the Chair.

A paper was read entitled "Descriptions of two new species of *Cypræa*," by Lovell Reeve:—

*CYPRÆA GASKOINII*. *Cypr. testâ subabbreviato-ovatâ, solidiusculâ, lateribus incrassatis, marginatis, dentibus fortiusculis; dorso fulvo-stramineo, ocellis albidis, fusco-annulatis, parviusculis, sparsim ornato, lateribus castaneo-punctatis, basi albâ.*

*Hab.* — ?

This interesting species, of which I have seen two specimens, one in the British Museum and one in the collection of J. S. Gaskoin, Esq., partakes of the characters of the *Cypræa Cumingii* and *esontropia*; the back being covered with the same kind of small clear ringed eyes as the *C. Cumingii*. I dedicate it with a great deal of pleasure to the gentleman above named, to whom I am much indebted for the zeal with which he has worked out the small and less attractive species of the genus.

*CYPRÆA PULICARIA*. *Cypr. testâ subcylindraceo-oblongâ, anticè subdeclivi, latere dextro marginato, leviter contracto, aperturâ angustâ, dentibus minutis; pellucido-albâ, vel luteâ, lateribus dorsoque punctis rubido-fuscis subconspicuis aspersis.*

*Hab.* — ?

Allied to *C. piperata*, but perfectly distinct, though it has been hitherto mingled with that species in collections; it is of a smaller and more cylindrically oblong form, and is not banded, whilst the dots are more conspicuous.

The following paper was also read:—

"Descriptions of three new species of *Cypræa*," by J. S. Gaskoin, Esq.

*CYPRÆA PELLUCIDULA*. *Cyp. testâ ovatâ, nitidâ, albicante subhyalind; costellis continuis ad utrumque latus aperturâ terminatis; dentibus æqualibus, minimis, numerosisque; sulco columellari profundo, lato; lined dorsali nullâ; extremitatibus valdè productis et obtusis; aperturâ rectâ, posticè subsinuatâ.*

SEMIPELLUCID COWRY.—Shell ovate, of a beautiful semipellucid white colour, shining; the ribs—anterior, posterior and dorsal—terminate in teeth on both sides and ends of the aperture, and traverse the columellar groove to its inner edge; a few ribs do not continue over the dorsum; the teeth, even, fine, and numerous, about thirty on the lip; columellar groove, deep and broad; base round; margins wide; no dorsal impression; extremities much produced, and obtuse; aperture straight, except a slight curve at its posterior extremity. Size  $\frac{1.8}{100}$ ths of an inch.

*Hab.* South Pacific.

*Cab.* Gaskoin, &c.

Differs from *exigua* of Gray, the *tremeza* of Duclos, in being less gibbous, ribs more numerous, finer, more even and regular, and but two or three terminate on the sides of the shell, none on the dorsum; they pass continuously over the shell from one side of the aperture to the other; shell perfectly colourless, and has no dorsal line or impression.

CYPRÆA PISUM. *Cyp. testâ spheroidali, pallescente; costellis prominentibus, ex aperturâ ad lineam dorsalem decurrentibus, et in lineam attenuatam terminantibus; dentibus prominentibus; sulco columellari lato; aperturâ latiusculâ posticè flexuosâ; basi rotundatâ; margine externo incrassato, supra extremitates extenso; extremitatibus crassis; lined dorsali profundâ, ex extremitatibus posticis ad anticam testæ partem continuâ.*

PEA COWRY.—Shell spheroidal, of a very light fawn colour; ribs large and prominent; nearly every rib extends from the aperture and terminates generally, tapering to a point, at the dorsal depression; mostly the terminations on one side pass between those of the other, especially on the anterior half of the shell; each third or fourth rib, amounting to about seven, ends on the lip at the base of the shell; all the other ribs on both sides form, by continuance, the teeth, which are strong and prominent; about twenty-three on the columellar side of the aperture, which extend across the columellar groove and serrate its inner edge; those on the outer side or lip about twenty-one in number; columellar groove broad and deep; aperture rather wide, curved, particularly at the posterior portion; base round; margin on the outer side very thick, extending over the beaks; none on the columellar side; extremities or beaks obtuse, thick, and slightly produced; dorsal depression deep, extending from between the posterior extremities to the anterior end of the shell, being more deeply impressed beside the apex.

Long.  $\frac{4.5}{100}$ ths of an inch.

*Hab.* East Indies.

Specimen unicum. *Cab.* Gaskoin.

The characters of this shell are so distinctive that it bears no relation to any yet described *Cypræa*; it is nearest in form to *Cypræa formosa* of Gaskoin.

CYPRÆA PULLA. *Cypr. testâ ovatâ, nitidâ, fusco-rubescente, costellis dentibusque concoloribus; costellis usque ad lineam dorsalem*

*ut plurimum continuis, et ad margines apertura terminantibus; sulco columellari albido, margine interno dentibus serrato; apertura angustá; labio externo extùs incrassato; extremitatibus paululum productis.*

REDDISH-BROWN COWRY.—Shell ovate, shining, of a dark reddish-brown colour; ribs the colour of the shell, mostly terminate at the dorsal depression; a very few on the sides of the shell, thence extending to form teeth on both sides of the aperture; on the outer side or lip about eighteen, and about sixteen on the columellar side; columellar groove whitish, the teeth traverse it and serrate its entire inner edge; aperture narrow, very slightly spiral; base round; margin thick, none on the columellar side; extremities slightly produced.

Differs from the *fusca* of Gray, in the ribs of the base, and the teeth not being white, but of the same colour as the shell; in the ribs being much finer, in having a dorsal line or impression, and in being of a deeper and redder colour.

Long.  $\frac{25}{100}$ ths of an inch.

Hab. — ?

Cab. Gaskoin, &c.

March 24.—William Yarrell, Esq., Vice-President, in the Chair.

The first communication was the following Note from Mr. Gulliver, on the size of the Blood-Corpuscles of Birds, with measurements by Dr. Davy of the Blood-Corpuscles of some Fishes and of a Humming Bird.

While my friend Dr. Davy was employed by our Government on a special medical service at Constantinople, and afterwards as principal medical officer at Barbadoes, he communicated to me the measurements, appended hereto, of the blood-corpuscles of some animals.

Medical officers residing in different parts of the world might render a very acceptable service to physiology, by giving an account of the blood-corpuscles not yet examined of various animals; and doubtless some new or otherwise interesting facts would thus be obtained, especially among the larger *Cetacea*, the smallest birds, the cartilaginous fishes, reptiles and amphibia.

Dr. Davy shows that some fetal sharks, six or seven inches long, have oval corpuscles like those of the adult; and he confirms Professor Wagner's observation as to their large size in this family.

Although, in a strictly natural family of Mammalia, as the Rodents or the Ruminants, there is a relation between the size of the corpuscles and that of the animal, there is no such relation in Mammalia of different orders. But in the entire class of Birds the law for the size of the corpuscles is the same as in a single family of Mammalia; at least among birds no example has yet been found of comparatively large corpuscles in the smallest species and of more minute corpuscles in the largest species. I have elsewhere\* remarked the necessity of examining the blood of the Humming Birds with reference to this view; which is now supported by Dr. Davy's observation, showing that the corpuscles of a bird of this kind are as small as those

\* Gerber's Anatomy, Appendix, p. 26. Lond. 1842.



hitherto examined of any bird, as may be seen by reference to the copious tables of my measurements of the blood-corpuscles of Vertebrata, in the 'Proceedings of the Zoological Society,' October 14, 1845. The long diameter of the corpuscles of *Rallus Philippinensis* is 1-2097th of an inch, and not 1-2997th, as there printed. In my observations in this class, those great birds the Ostrich and the Javanese Cassowary were found to have the largest blood-corpuscles; while the smallest corpuscles occurred in the little insectivorous and granivorous birds. The average length of the corpuscles of the Cassowary was 1-1455th and their breadth 1-2800th of an inch.

These remarks all refer to the red corpuscles; and the measurements of them in the following notes by Dr. Davy are, like all my measurements, in vulgar fractions of an English inch.—G. G.

*Torpedo oculata*.—Blood from heart: long diameter of the corpuscles about 1-800; short diameter 1-1000. Some further particulars have been given respecting them in a paper deposited in the archives of the Royal Society.

*Spigota (Perca marina)*.—Blood from vessels of gills: long diameter of corpuscles from 1-4000 to 1-3750; short diameter 1-4000.

*Pylamedes (Thynnus Pylamedes)*.—Long diameter of corpuscles about 1-2000; short diameter about 1-3000.

A small species of Mackerel, corpuscles 1-2286 by 1-4000. Taken from the heart; oil particles four times as large were mixed with the red particles.

A small fish; species of it I have not yet made out; corpuscles about 1-4000 to 1-3000, by about 1-6000.

Another species I have not yet made out; particles about 1-3000 by 1-4000.

Another small species, not made out; particles, most of them circular, about 1-4000; a few elliptical.

*Sword-fish*.—Particles, long diameter, from 1-2000 to 1-3200; short diameter, 1-3200 to 1-5333.

*Red Mullet*.—Many particles circular, about 1-4000; some elliptical, about 1-2286 by 1-3200.

*John Dory*.—Corpuscles 1-1777 by 1-2666; some nearly circular.

A species of large Mackerel; corpuscles about 1-2000 to 1-2666, by about 1-4000.

*Small spotted Dog-fish*.—Corpuscles about 1-1333 by 1-2000.

*Sturgeon*.—Corpuscles about 1-1600 by 1-2666.

*Squalus acanthias*.—Corpuscles about 1-1231 by 1-1777; nucleus elliptical.

*Brown spotted Dog-fish*.—Corpuscles from 1-1000 to 1-1143, by 1-1600 to 1-1455.

*Tunny (Thynnus communis)*.—Corpuscles 1-1600 by 1-2666.

Eel, species I have not made out; corpuscles about 1-2000 by 1-3200; a few circular.

A species of small fish I have not yet made out; corpuscles about 1-2666 by 1-4000.

A species of Scyllium, a cartilaginous fish, probably a new species. I have sent a specimen to Chatham. Corpuscles about 1-1000 by 1-2000.

In a female of the same kind some of the blood-particles were as large as 1-666 by 1-888; nucleus about 1-2666 and globular.

Fœtus of *Squalus acanthias*; corpuscles about 1-1000 by 1-1600; fœtus about seven inches long.

Fœtus of *Squalus squatina*, about six inches long; corpuscles about 1-1000 by 1-1333.

Small fish; I have not yet made out the species; corpuscles about 1-2000 by 1-2666.

Another small fish, the kind of which is at present unknown to me; corpuscles about 1-2666; the majority of them circular.

These are the results of the few observations I made in Constantinople. Not having books to refer to, I could not at the time determine several of the fishes, nor have I yet had leisure to compare my notes with authorities on the subject, to make out the species. The size of the particles of *all* the cartilaginous fishes is very much larger than of the osseous; the particles were few in number, transparent, soft, readily changing their shape from slight pressure; *nuclei distinct*.

I have given the dimensions just as I noted them down. All the fishes were fresh. J. D.

Constantinople, Jan. 8, 1842.

I have had a Humming Bird killed and instantly brought to me; its blood-corpuscles were beautifully definite, regular and uniform. The disc very thin, perfectly flat, the nucleus slightly raised, and the two corresponding in outline. The corpuscle 1-2666th by 1-4000th of an inch; the long diameter of the nucleus very nearly 1-4000th. The blood was small in quantity, as I apprehend is the blood of birds generally, but not deficient in red corpuscles. I have found its temperature to be about 105°. Whilst its solid food is insects, I believe its drink is the sweet juice of flowers. I have not a book to refer to for the species. Tail-feathers black; head green; rump green; wings brownish, almost black. J. D.

Barbadoes, Jan. 7, 1846.

The next paper was entitled "Descriptions of thirty new species of *Helicea*, belonging to the collection of H. Cuming, Esq.," by Dr. L. Pfeiffer:—

1. *HELIX SWAINSONI*, Pfr. *Hel. testâ umbilicatâ, utrinque depressissimâ, tenui, pellucidâ, subarcuatim ruguloso-striatâ, virescenti-fulvâ, lineis 2 rufis ornatâ; anfractibus 5 depressis, medio convexiusculis, carinatis; carinâ rufescente, acutâ, breviter prominente, subrugulosâ; umbilico mediocri, profundo; aperturâ perobliquâ, depressè securiformi; peristomate simplice, recto, margine columellari subincrassato.*

Diam. 16, alt. 5 mill.

From Tahiti; under stones (B. W. Tucker, Esq.).

2. *HELIX STENOSTOMA*, Pfr. *Hel. testâ imperforatâ, globuloso-depressâ, solidâ, sublavigatâ, nitidâ, albâ, fasciâ unicâ fuscâ ad peripheriam et seriebus 2 macularum aurantiarum ornatâ, punctisque griseis obsolete aspersâ; anfractibus 4½ vix convexiusculis, ultimo ventroso, anticè abruptè deflexo; aperturâ subhorizontali,*

ellipticâ; peristomate albo, labiato, marginibus approximatis, supero breviter expanso, basali arcuato, appressè reflexo.

Diam. 13-15, alt.  $8\frac{1}{2}$ -9 mill.

Locality unknown.

3. *BULIMUS HOLOSTOMA*, Pfr. *Bul. testâ rimato-perforatâ, cylindraceâ, apice obtuso, opaco, carneo-cinereo, obliquè et validè plicato-costato; anfractibus 7 subplanulatis, deorsum attenuatis, supernè subangulatis, ultimo  $\frac{1}{4}$  longitudinis subæquante; aperturâ verticali, oblongâ, integrâ; peristomate simplice, acuto, marginibus subparallelis, supero breviter soluto.*

Long. 9, diam.  $2\frac{2}{3}$  mill.

From Cobija, Bolivia, on the hills under bushes (H. Cuming).

The same species brought from the Sandwich Islands by B. W. Tucker, Esq. ?

4. *BULIMUS LEAI*, Pfr. *Bul. testâ imperforatâ, ovato-conoided, obtusâ, solidulâ, obliquè tenuiter striatâ, nitidâ, fulvescenti-albâ; anfractibus  $5\frac{1}{2}$  convexiusculis, ultimo spirâ breviorè, basi subgloboso; columellâ strictiusculâ, declivi, perdilatatâ, subplanatâ, basi subtruncatâ; aperturâ obsoletè subtetragono-rotundatâ, intus albâ; peristomate breviter expanso, subincrassato.*

Long. 37, diam. 24 mill.

From the Philippine Islands (H. Cuming).

Nearly allied to *Bul. cincinniformis*.

5. *BULIMUS FENESTRATUS*, Pfr. *Bul. testâ perforatâ, subfusiformi-oblongâ, solidulâ, longitudinaliter profundè undulato-sulcosâ, albâ, fasciis infra 65, et strigis undulatis nigricanti-castaneis fenestratâ; suturâ crenulatâ; anfractibus  $6\frac{1}{2}$  convexiusculis, ultimo spiram conicam, acutam paulò superante; columellâ subplicatâ, obliquè recedente, lilaceâ; aperturâ oblongo-semiovali, intus lilacinâ; peristomate expanso, margine columellari supernè angulatim reflexo, subappresso.*

Long. 45, diam. 18 mill.

From Mexico.

6. *BULIMUS DARWINI*, Pfr. *Bul. testâ profundè rimatâ, ovato-conicâ, solidulâ, rugis nodulatis et crispis, validè sculptis, sordidè albidis; spirâ conicâ, apice acutiusculo, corneo; anfractibus 6 convexis, 3 supremis sublævigatis, ultimo spiram subæquante; columellâ subtortâ, subverticali; aperturâ latâ, subovalî, intus nitidulâ, albâ, tuberculo calloso, profundo in ventre anfractûs penultimi coarctatâ; peristomate simplice, recto, margine dextro supernè arcuato, columellari perdilatato, patente.*

Long. 17, diam. 19 mill.

From the Gallapagos Islands; found on bushes (C. Darwin, Esq.).

7. *BULIMUS SCULPTURATUS*, Pfr. *Bul. testâ perforatâ, ovato-turritâ, tenuiusculâ, longitudinaliter subremotè et validè undulato-rugosâ, interstitiis rugarum spiraliter argutè striatâ, fuscâ, spirâ elongato-conicâ, apice acutiusculo, corneo; anfractibus 7 convexis, ultimo  $\frac{2}{3}$  longitudinis subæquante; columellâ strictâ, basin aper-*



\* *turæ attingente; aperturâ ellipticâ, basi angulatâ; peristomate simplice, acuto, margine columellari fornicatim reflexo, libero.*

Long. 14, diam.  $6\frac{1}{2}$  mill.

From the Gallapagos Islands; found on bushes (Darwin).

8. *BULIMUS HONDURASANUS*, Pfr. *Bul. testâ apertè perforatâ ovato-conicâ, lævigatâ, nitidâ, flavescenti-albidâ, fasciis 3 aredque umbilicali fusco-roseis ornatâ; anfractibus 6 vix convexiusculis, ultimo spirâ conicâ, acutâ paulò breviorè; columellâ strictâ, verticali; aperturâ ovali-oblongâ, intus concolore; peristomate simplice, recto, margine columellari in laminam triangularem subfornicatam expanso.*

Long.  $18\frac{1}{2}$ , diam. 10 mill.

From Honduras (Dyson).

9. *BULIMUS SARCODES*, Pfr. *Bul. testâ apertè perforatâ, oblongo-conicâ, tenui, striatulâ, lineis spiralibus sub lente obsoletissimè decussatâ, carnèâ; spirâ conicâ, acutiusculâ; anfractibus 6 convexiusculis, ultimo  $\frac{4}{5}$  longitudinis subæquante; columellâ leviter arcuatâ; aperturâ ovali, intus nitidâ; peristomate recto, acuto, margine dextro arcuato, columellari dilatato, fornicatim patente.*

Long.  $17\frac{1}{2}$ , diam. 8 mill.

From Honduras (Dyson).

10. *BULIMUS TUCKERI*, Pfr. *Bul. testâ perforatâ, cylindraceo-subulatâ, tenui, longitudinaliter distinctè striatâ, nitidulâ, cerèâ; spirâ elongatâ, apice acutiusculo; anfractibus 9 convexiusculis, ultimo  $\frac{1}{4}$  longitudinis vix æquante; columellâ obliquè recedente; aperturâ ovali-oblongâ; peristomate simplice, acuto, margine columellari supernè dilatato, patente.*

Long. 9, diam.  $2\frac{3}{4}$  mill.

From Sir Charles Hardy's Island, Pacific Ocean (B. W. Tucker, Esq.).

11. *BULIMUS GRUNERI*, Pfr. *Bul. testâ angustè perforatâ, cylindraceo-turritâ, lævigatâ, nitidâ, albidâ unicolore vel fusco obliquè strigatâ vel macularum spadicearum seriebus nonnullis cingulatâ; spirâ elongatâ, apice acuto; suturâ albo-marginatâ; anfractibus 7-8 planis, ultimo  $\frac{1}{3}$  longitudinis æquante; columellâ subtortâ; aperturâ ovali-oblongâ; peristomate simplice, recto, margine columellari basi subexpanso, supernè fornicatim reflexo.*

Long. 28, diam. 10 mill.

β. *Perforatione apertâ, margine peristomatis fornicatim patente.*

From Mexico.

12. *BULIMUS VINCENTINUS*, Pfr. *Bul. testâ subperforatâ, fusiformi, tenui, lævigatâ, lineis concentricis leviter impressis sculptâ, nitidâ, pellucidâ, lutescenti-hyalinâ, fasciis 5 subæqualibus violaceo-fuscis ornatâ; spirâ conicâ, apice acutiusculo, nigro; anfractibus 6 planiusculis, ultimo spiram subæquante, basi attenuato; columellâ paulò recedente; aperturâ obliquâ, ovali-oblongâ, intus concolore; peristomate tenui, margine dextro breviter expanso, supernè dilatato, columellari in laminam triangularem angulatim reflexo, perforationem ferè claudente.*

Long. 30, diam.  $11\frac{1}{2}$  mill.

*β. unicolor citrinā vel stramineā, paulō gracilior.*

Long. 30, diam.  $10\frac{1}{2}$  mill.

From the Island of St. Vincents (Rev. L. Guilding): var. *β.* from Venezuela; on bushes (Linden).

13. *BULIMUS ORBIGNYI*, Pfr. *Bul. testā umbilicatā, oblongo-turritā, tenui, regulariter et confertim plicatā, albā; spirā turritā, acutā; anfractibus  $7\frac{1}{2}$  convexiusculis, ultimo  $\frac{2}{3}$  longitudinis subæquante; umbilico angusto, aperto; columellā vix arcuatā; aperturā oblongā; peristomate simplice, acuto, marginibus subparallelis supernè conniventibus, columellari subfornicato, patente.*

Long. 19, diam. 8 mill.

Locality unknown.

14. *BULIMUS PETITI*, Pfr. *Bul. testā perforatā, ovato-conicā, solidā, longitudinaliter rugoso-striatā, striis concentricis, irregularibus obsoletissimè subdecussatā, fuscā; spirā conicā, apice obtuso, pallido; suturā crenulatā, albido-marginatā; anfractibus 6 planiusculis, ultimo spiram paulō superante; columellā leviter arcuatā; aperturā acuto-ovali, intus nitidulā, lividā; peristomate simplice, recto, margine dextro acuto, columellari dilatato, albido, liberè reflexo.*

Long. 26, diam. 16 mill.

From Peru.

15. *BULIMUS SANDWICENSIS*, Pfr. *Bul. testā perforatā, cylindraceo-turritā, apice acutiusculo, tenui, striatulo, corneo, strigis albis, opacis, irregularibus, variegato; anfractibus 10 vix convexiusculis, ultimo  $\frac{1}{3}$  longitudinis non æquante, basi circa perforationem apertam subcompresso; aperturā oblongo-ovali; peristomate simplice, tenui, margine dextro leviter arcuato, expansiusculo, columellari membranaceo, fornicato, patente.*

Long. 15, diam.  $4\frac{1}{2}$  mill.

From the Sandwich Islands (B. W. Tucker, Esq.).

16. *PUPA PACIFICA*, Pfr. *Pup. testā profundè rimatā, ovato-cylindraceā, apice obtusiusculo, solidulo, sublævigato, fusco-corneo; anfractibus  $5\frac{1}{2}$  convexis, ultimo  $\frac{1}{3}$  longitudinis subæquante; aperturā semiovali, edentulā; peristomate breviter expanso, intus albolabiato, margine dextro supernè breviter curvato, tuberculo calloso interdum juxtaposito, columellari latiore, patente.*

Long.  $4\frac{1}{3}$ , diam.  $2\frac{1}{3}$  mill.

From Sir Charles Hardy's Island, Pacific Ocean (B. W. Tucker, Esq.).

17. *ACHATINA CYLINDRACEA*, Pfr. *Ach. testā subcylindraceā utrinque breviter attenuatā, lævigatā, nitidā, lutescenti-cornē; suturā lineari, albo-marginatā; spirā brevi, conoidē, obtusiusculā; anfractibus 5 planulatis, ultimo  $\frac{3}{4}$  longitudinis æquante; columellā tortā, lamina callosā, albā, acutè prominente, per longitudinem munitā, subtruncatā; aperturā angustā, acuminato-oblongā, basi rotundatā; peristomate simplice, margine dextro medio antrorsum dilatato.*



Long. 13, diam.  $5\frac{1}{2}$  mill.

From Tortilla, Central America; in damp places.

Belongs, by the formation of the columella, to that aberrant group of *A. columna*, *Lattrei*, *aberrans*, *Dysoni*, *anomala*, *splendida*, &c.

18. *ACHATINA DYSONI*, Pfr. *Ach. testá oblongo-conicá, tenuissimá, glabrá, pellucidá, nitidá, lutescenti-corned; spirá conicá, obtusiusculá; suturá simplice; anfractibus 5 convexiusculis, ultimo  $\frac{2}{3}$  longitudinis subæquante, deorsum subdilatato; columellá arcuatim tortá, subcallosá, vix truncatá; aperturá angustá, acuminato-oblongá, basi rotundatá; peristomate simplice, tenui, margine dextro medio antrorsum dilatato.*

Long.  $9\frac{1}{2}$ , diam. 4 mill.

From Honduras; found under decayed leaves by Mr. Dyson.

19. *ACHATINA SANDWICENSIS*, Pfr. *Ach. testá ovato-conicá, obliquè striatá, subopacá, sordidè corned; spirá conicá, obtusiusculá; suturá lined impressá marginatá; anfractibus  $6\frac{1}{2}$  planulatis, ultimo  $\frac{1}{3}$  longitudinis vix superante; columellá arcuatá, plicato-tortá; aperturá latá, semiovali; peristomate simplice, margine dextro obtuso, columellari subreflexo, appresso.*

Long. 7, diam.  $3\frac{1}{2}$  mill.

From the Sandwich Islands (B. W. Tucker, Esq.).

20. *ACHATINA (GLANDINA) SOWERBYANA*, Pfr. *Ach. testá ovato-fusififormi, tenuiusculá, diaphaná, longitudinaliter confertim plicatá, striis spiralibus, inæqualiter distantibus decussato-granulatá, fulvorubellá, strigis remotis, fuscis ornatá; spirá conicá, apice acutá; suturá albo-marginatá, crenulatá; anfractibus  $7\frac{1}{2}$  planiusculis, ultimo  $\frac{5}{8}$  longitudinis subæquante; columellá arcuatá, basi abruptè truncatá; aperturá acuminato-oblongá; peristomate simplice, marginibus callo tenui junctis, dextro repando.*

Long. 88, diam. 38 mill.

From Totontepec, Mexico; on decayed vegetable matter.

21. *ACHATINA (GLANDINA) ISABELLINA*, Pfr. *Ach. testá fusiformi-oblongá, tenui, nitidá, sub lente spiraliter confertim striatá, pellucidá, isabelliná; suturá lined impressá marginatá; anfractibus 6 convexiusculis, ultimo spirá conicá, obtusá vix breviorè; columellá obliquá, strictiusculá, supra basin aperturæ elliptico-oblongæ breviter truncatá; peristomate simplice, obtuso.*

Long. 26, diam. medio 10 mill.

From Mexico; found in decayed trunks of trees.

22. *ACHATINA (GLANDINA) TORTILLANA*, Pfr. *Ach. testá subfusiformi-ovatá, solidulá, striis longitudinalibus, confertis regulariter sculptá, nitidá, pellucidá, pallidè corned, maculis et strigis opacis, lactescentibus irregulariter signatá; suturá submarginatá; anfractibus  $7\frac{1}{2}$  convexiusculis, ultimo spiram conicam, obtusam, vix superante; columellá fortiter arcuatá, supra basin aperturæ elliptico-oblongæ abruptè truncatá; peristomate simplice, obtuso, margine dextro medio subdilatato.*

Long. 20, diam. medio 8 mill.

From Tortilla, Central America; in damp places.

23. *BULIMUS AURATUS*, Pfr. *Bul. testá subobtectè perforatá, oblongo-turritá, tenui, longitudinaliter subtiliter striatá, pellucidá, auratá, lineis saturatioribus spiralibus obsolete notatá; spirá turritá, obtusá; suturá submarginatá, minutè crenulatá; anfractibus 7 vix convexiusculis, ultimo  $\frac{2}{3}$  longitudinis vix æquante; columellá strictiusculá; aperturá ovali-oblongá; peristomate simplice, recto, margine columellari breviter reflexo, subappresso.*

Long. 30, diam. 10 mill.

Locality unknown.

24. *BULIMUS PANAYENSIS*, Pfr. *Bul. testá imperforatá, subulatá, tenui, lævigatá, pellucidá, cereo-hyaliná; spirá elongatá, apice obtuso; anfractibus 8 latis, vix convexiusculis, ultimo  $\frac{1}{4}$  longitudinis vix æquante; columellá brevi, strictiusculá; aperturá ovali-oblongá, basi subangulatá; peristomate simplice, recto, margine columellari breviter reflexo, appresso.*

Long. 11, diam.  $2\frac{1}{2}$  mill.

From Dingle, island of Panay (Cuming).

25. *BULIMUS PERSPECTIVUS*, Pfr. *Bul. testá umbilicatá, oblongo-conicá, tenui, striatá, pellucidá, nitidá, rufo-corned; spirá elongato-conicá, acutiusculá; anfractibus 7 convexiusculis, ultimo  $\frac{2}{5}$  longitudinis æquante, basi subangulatim compresso; umbilico angusto, profundè perspective; aperturá oblongá; peristomate simplice, rufo, marginibus conniventibus, callo tenui junctis, dextro breviter expanso, columellari dilatato, patente.*

Long. 16, diam.  $6\frac{1}{2}$  mill.

Locality unknown.

26. *BULIMUS MERIDANUS*, Pfr. *Bul. testá perforatá, oblongo-subfusiformi, striatá, lævigatá, lutescenti-albidá, fasciis angustis cæruleo-fuscis, vel latis castaneis, strigatim interruptis ornatá; spirá turrito-conicá, acutiusculá; anfractibus 6 planiusculis, ultimo spiram æquante; columellá leviter arcuatá; aperturá oblongo-ovali, intus concolore; peristomate simplice, margine dextro breviter expanso, columellari dilatato, fornicatim reflexo, albo, perforationem ferè occultante.*

Long. 29, diam. 11 mill.

From Merida, Andes of Bolivia.

27. *BULIMUS MONTEVIDENSIS*, Pfr. *Bul. testá perforatá, ovato-conicá, subfusiformi, tenui, obliquè striatá, non nitente, albidá, opacá, lineis longitudinalibus crebris, pellucidis, pallidè corneis strigatá; spirá conicá, apice acuto; anfractibus 7-8 planiusculis, ultimo spirá paulò brevior, interdum medio obsolete angulato; columellá verticali, strictá; aperturá oblongo-ovali; peristomate simplice, recto, margine columellari membranaceo, fornicatim reflexo.*

Long. 28, diam. 12 mill.

From Montevideo, Buenos Ayres.

28. *BULIMUS JUSSIEUI*, Val. Mur. *Bul. testá perforatá, ovato-conicá, striis rudibus incrementi spiralibusque minutis irregulariter decussato-granatá, corned, obliquè albido-strigatá; spirá conicá,*

*acutiusculá ; anfractibus 6 convexiusculis, ultimo spiram æquante ; columellá recedente, subarcuatá ; aperturá ovali, intus nitidè albá ; peristomate simplice, recto, margine columellari albedo, dilatato, subfornicatim reflexo.*

Long. 32, diam. 15 mill.

From Cusoo.

29. *BULIMUS BOLIVIANUS*, Pfr. *Bul. testá perforatá, oblongo-turritá, lineis impressis sub lente minutissimè decussatá, nitidá, albido-rubellá, fasciis latis, badiis, subinterruptis ornatá ; spirá turritá, apice acuto, rubro ; anfractibus 7 planis, ultimo convexiusculo,  $\frac{4}{5}$  longitudinis subæquante ; columellá torto-plicatá, roseá ; aperturá ovali-oblongá, intus concolore ; peristomate simplice, margine dextro breviter expanso, columellari per dilatato, reflexo, excavato, perforationem rimæformem ferè tegente.*

Long. 33, diam. 13 mill.

From Merida, Andes of Bolivia.

30. *BULIMUS OPARANUS*, Pfr. *Bul. testá subimperforatá, subulatá, longitudinaliter distinctè striatá, tenui, hyalino-cereá ; spirá subulatá, acutiusculá ; anfractibus 9 vix convexiusculis, ultimo  $\frac{2}{7}$  longitudinis subæquante ; columellá vix arcuatá ; aperturá oblongo-ovalí ; peristomate simplice, recto, margine columellari fornicatim brevissimè reflexo, adnato.*

Long. 11, diam. 3 mill. (Spec. max.)

From the island of Opara ; found in earth at the roots of plants (H. Cuming, Esq.).

#### BOTANICAL SOCIETY OF EDINBURGH.

May 14, 1846.—Professor Balfour, President, in the Chair.

Donations to the library and museum were announced, and several Fellows were elected.

The following communications were read :—

1. "Biographical Sketch of the late Professor Graham," by Dr. Ransford.

"Robert Graham was the third son of the late Dr. Graham of Stirling (afterwards Moir of Leckie), and of Mrs. Anne Stewart, daughter of the late Charles Stewart, Esq., of Appin. His early education was obtained at Stirling. He was apprenticed in 1804 to the late Mr. Andrew Wood, F.R.C.S. Edinburgh, and became a licentiate of the College of Surgeons in 1808, and graduated at the University during the same year. He then studied for twelve months in London at St. Bartholomew's Hospital, and afterwards commenced practice in Glasgow. In 1812 he was appointed Physician to the Infirmary of the latter city and Lecturer on Clinical Medicine, and published an essay on the continued fever, which at the time was epidemic in Glasgow. Dr. Graham succeeded Dr. Brown as Lecturer on Botany ; and in the following year, having been appointed by the Government Professor of Botany in the University of Glasgow, he succeeded, in conjunction with some other gentlemen, in establishing a Botanical Garden, and took the principal share in its for-